

TICK FACT SHEET

The following information will help you to become familiar with the epidemiology, symptomatology, ecology, and control of Tick-borne Encephalitis.

WHAT IS TICK-BORNE ENCEPHALITIS?

Tick-borne encephalitis (TBE) is a group of viral diseases resembling mosquito-borne encephalitides. The initial stage is absent of any central nervous system involvement and the second stage of fever, headache, nausea and vomiting, a stiff neck, and the inability to tolerate bright light follows 4 to 10 days after apparent recovery. The TBE group includes Central European Tick-borne Encephalitis, Viral Meningoencephalitis, Louping Ill, Powassan Encephalitis, Biphaseic Meningoencephalitis and Diphasic Milk Fever. The complex is commonly referred to as Russian Spring-Summer Encephalitis.

HOW IS TBE TRANSMITTED?

TBE is transmitted by the bite of infected ticks in the genus *Ixodes*. *Ixodes ricinus* and *I. persulcatus* are the principal vectors in Western Europe. TBE is not directly transmitted from human to human. Consumption of raw milk from infected sheep and goats has caused local epidemics in Central Europe.

TBE IN EUROPE.

TBE is found throughout Europe and the former USSR. Areas of greatest concern are rural and forested areas where humans are more apt to encounter infected ticks. *Ixode* game trails in knee to waist high grasses and brush located near forested areas. This disease is seldom found in urban areas. Personnel are most likely to be exposed in the spring and early autumn when ticks are most active and numerous. Most cases of TBE have been reported in soldiers, farmers, trappers, forest workers, and construction workers in regions newly opened for development. Peak months for *Ixodes* tick activity in Central Europe are May through September. During active periods, each tick development stage (larvae, nymph, adult) searches for a blood meal to complete the life cycle. TBE is transmitted during all three developmental stages of the tick life cycle. Infected ticks are capable of transmitting the disease throughout their life. Nymphs pose the greatest threat to humans because of their small, easily undetectable size and ability to feed on larger mammals.

WHAT ARE THE SYMPTOMS?

Human infection by the virus does not always result in the development of the disease. About 95% of human infections end with an inapparent infection resulting in development of immunity. The disease progresses with a two-phase pattern. The incubation period of the disease usually lasts from 7 to 14 days.